

इंटरनेट

मानक

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“पुराने को छोड़ नये के तरफ”

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“Step Out From the Old to the New”

IS 12324 (1988): Hexagonal Die Nuts [PGD 32: Cutting tools]



“ज्ञान से एक नये भारत का निर्माण”

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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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## Indian Standard

## SPECIFICATION FOR HEXAGONAL DIE NUTS

**1. Scope** — Covers the dimensions and other requirements for hexagonal die nuts for producing ISO metric threads from M1 to M68 with fine pitches and pipes of R and G series.

**2. Dimensions** — Shall be as given in Tables 1, 2, 3 and 4 read with Fig. 1.

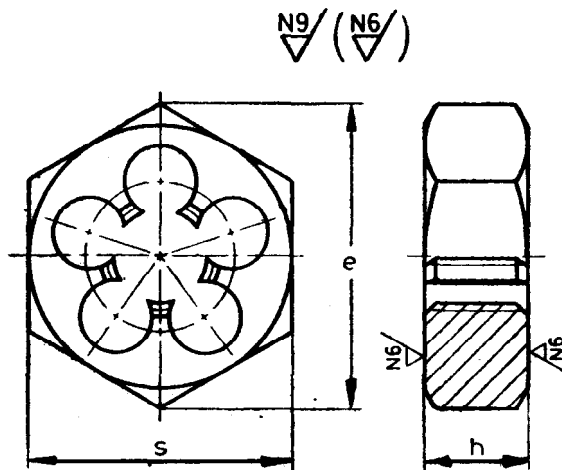


FIG. 1 DIMENSIONS FOR HEXAGONAL DIE NUTS

**3. Material and General Requirements** — Shall be as given in IS : 12319-1988 'Technical supply conditions for circular screwing dies'.

**4. Designation**

**4.1** A hexagonal die for finishing M10 thread of pitch 1 mm, made of high speed steel and conforming to this standard shall be designated as:

Hexagonal Screwing Die-nut M10 × 1 IS : 12324

**4.2** In case material of a die is carbon tool steel, it shall be added in the designation.

**5. Sampling**

**5.1** The sampling and criteria of acceptance shall be according to IS : 7778-1975 'Methods for sampling small tools'.

**7. Marking**

**6.1** The dies shall be marked with designation, manufacturer's trade-mark, batch No. and year of manufacture.

**6.2 Standard Marking** — Details available with the Bureau of Indian Standards.

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BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

TABLE 1 DIMENSIONS FOR HEXAGONAL DIE NUTS FOR ISO METRIC SCREW THREADS—COARSE PITCH  
(Clause 2 and Fig. 1)  
All dimensions in millimetres.

Nominal Size	Pitch <i>p</i>	<i>s</i> h13	<i>e</i> ≈	<i>h</i> js13
M 3	0.5	18	20.7	5
M 4	0.7			7
M 5	0.8			
M 6	1	21	24.2	
M 7				
M 8	1.25	27	31.2	11
M 9				
M 10	1.5	36	41.6	14
M 11				
M 12	1.75	41	47.3	18
M 14	2			
M 16				
M 18	2.5			
M 20				

Nominal Size	Pitch <i>P</i>	<i>s</i> h13	<i>e</i> ≈	<i>h</i> js13
M 22	2.5	50	57.7	22
M 24	3			
M 27		3.5	60	69.3
M 30				
M 33				
M 36	4	70	80.8	30
M 39				
M 42	4.5			
M 45				
M 48	5			
M 52				

TABLE 2 DIMENSIONS FOR HEXAGONAL DIE NUTS FOR ISO METRIC SCREW THREADS—FINE PITCH  
(Clause 2 and Fig. 1)  
All dimensions in millimetres.

Nominal Size	<i>s</i> h13	<i>e</i> ≈	<i>h</i> js13 for Pitch <i>P</i>								
			4	3	2	1.5	1.25	1	0.75	0.5	0.35
3	18	20.7									5
4										5	
5										5	
6									7		
7	21	24.2							9		
8								9	9		
9								9	9		
10							11	11	11		
11	27	31.2						11	11		
12	36	41.6				10	10	10			
14						10		10			
16						14		14			
18						14		14			
20	41	47.3			18	14		14			
22					16	16		16			
24					16	16		16			
27					18	18		18			
30	60	69.3			18	18		18			
33					18	18					
36				25	18	18					
39				30	20	20					
42	70	80.8	30	30	20	20					
45	85	98	36	36	22	22					
48			36	36	22	22					
52			36	36	22	22					

**TABLE 3 DIMENSIONS FOR HEXAGONAL DIE NUTS FOR G-SERIES PIPE THREADS**

(Clause 2 and Fig. 1)

All dimensions in millimetres.

Nominal Size	s h13	e ≈	h js13
G 1/16	21	24.2	9
G 1/8	27	31.2	11
G 1/4	36	41.6	10
G 3/8	41	47.3	14
G 1/2			
G 5/8	50	57.7	16
G 3/4			
G 7/8	60	69.3	18
G 1			
G 1 1/8	70	80.8	20
G 1 1/4			
G 1 1/2	85	98	22
G 1 3/4	100	116	22
G 2			

**TABLE 4 DIMENSIONS FOR HEXAGONAL DIE NUTS FOR R-SERIES PIPE THREADS**

(Clause 2 and Fig. 1)

All dimensions in millimetres.

Nominal Size	s h13	e ≈	h js13
R 1/16	21	24.2	10
R 1/8	27	31.2	10
R 1/4	36	41.6	14
R 3/8	41	47.3	15
R 1/2	50	57.7	19
R 3/4	60	69.3	20
R 1			24
R 1 1/4	85	98	26
R 1 1/2			
R 2	100	116	31

**EXPLANATORY NOTE**

The requirements of thread cutting dies were earlier covered under IS : 1859-1961. IS : 1859 is being modified and replaced by a series of standards to include various requirements pertaining to screwing dies which have been felt necessary at the national and international level. The title of the standard is also being modified as 'Circular screwing dies' in place of 'Thread cutting dies' so as to bring it in line with the terminology agreed to at the international level.

The series of standards are as follows:

IS : 12319-1988	General dimensions for circular screwing dies
IS : 12320-1988	Technical supply conditions for circular screwing dies
IS : 12321-1988	Circular screwing dies for ISO metric screw threads
IS : 12322-1988	Circular screwing dies for taper pipe threads — R series
IS : 12323-1988	Circular screwing dies for parallel pipe threads — G series
IS : 12324-1988	Hexagonal die nuts
IS : 12325-1988	Circular screwing dies for ISO metric conduit pipe threads

On the publication of above standards, IS : 1859 will stand withdrawn.

In the preparation of this standard, considerable assistance has been derived from:

DIN 382-1987 'Sechskant—Schneidisen (Hexagonal Die-Nuts)' issued by the Deutsches Institut für Normung (DIN), and ISO 7226-1985 'Dimensions of hexagonal die nuts', issued by the International Organization for Standardization (ISO).